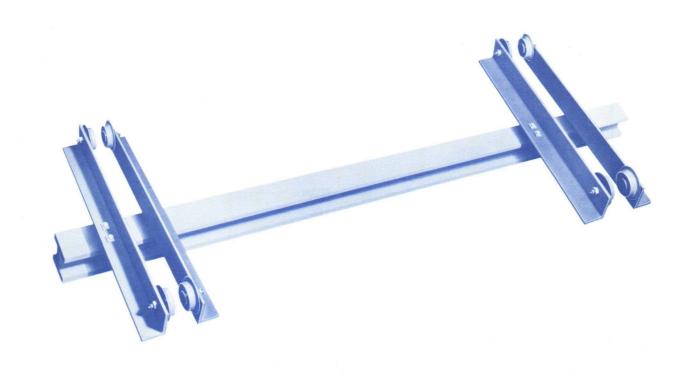


Issued 3-20-87 Supersedes 3-1-84

## **WRIGHT®SERIES 521**

UNDERHUNG SINGLE GIRDER CRANE PUSH-PULL

> CAPACITIES to 2 TONS SPANS to 25 FEET



The Wright Series 521 underhung single girder hand push-pull cranes are designed for intermittent or standby service and moderate loads where it is practical to support a crane runway from the roof trusses or ceiling.

The Series 521 underhung single girder crane, when combined with a *Wright* hand or electric hoist, is an excellent system which permits maximum utilization of building cube. With a hand chain hoist, such installation is inexpensive. An electric operated hoist is desirable for frequent or rapid lifts.

All components are selected for top performance, long dependable service, and lowest maintenance.

The Series 521 crane is offered in capacities from one through two tons with spans up to 25 feet.

The bridge consists of heavy section beam rigidly bolted underneath the end truck.

The bottom flange of the main beam is true and straight to allow smooth travel of hoisting unit.

The end trucks, with gray iron wheels, are lifetime prelubricated and sealed. End trucks are operable on l-beam or wide-flange runways.

The Series 521 cranes are custom-designed, using pre-engineered components.

### SERIES 521 UNDERHUNG SINGLE GIRDER CRANE PUSH-PULL

# 1 to 2 TONS

#### STANDARD EQUIPMENT SPECIFICATIONS

**DESIGN FACTORS** Standard capacity ratings shall represent the net rated load at the hook of any type of hoist with the same load rating installed on the crane having a hoist trolley weight within the established limits. The crane shall be so designed that the load carrying parts, except structural members and hoisting ropes and gearing, shall be designed so that the calculated static stress in the material, based on the rated load, shall not exceed 20% of the published average ultimate strength of the material. This limitation of stress provides a margin to allow for variations in the properties of materials, manufacturing and operating conditions, and design assumptions. However, under no condition shall the crane be loaded beyond its rated capacity.

**BEAM** Bridge beam shall be designed in accordance with latest specifications of the Crane Manufacturers Association of America and shall be of standard structural shapes constructed in accord with AISC specifications. Under full load the beam deflection shall not exceed 1/600 of the span. Bridge beam shall be selected structural steel members and shall provide level and straight tread surfaces for the hoist trolleys.

**END TRUCKS** End trucks shall be designed to run on the lower flanges of the U.S. Standard or wide-flange beams. Each end truck shall be equipped with four flanged wheels. End truck wheel base shall be a minimum of 1/8 of the crane span. Attachment of end trucks to bridge beam shall be with bolts which aid in assembly and erection.

**CRANE WHEELS** Wheels shall be supported on bearings mounted on stationary axles suitable to take radial and thrust loads. Wheel mounting shall be designed so that axles and wheels can be removed without disturbing other elements of their alignment.

**RUNWAYS** The runway beams' operating surfaces shall be straight, parallel, level, and at the same elevation. The distance center to center and the elevation shall be within a tolerance of plus or minus 1/8". The runway should be standard sections of a proper size for the crane to be installed.

The crane runway and stops shall be furnished and installed by the user.

The crane runway shall be designed with sufficient strength and rigidity to prevent undue lateral or vertical deflection.

**BEARING LIFE** All bearings in the crane wheels shall be designed for 3,000 hours B-10 bearing life minimum.

**PAINTING** The crane before shipment shall be painted with one coat of mustard yellow lead free chromate paint.

**OPERATING AND MAINTENANCE** Proper erection instructions, parts list and maintenance instructions will be furnished with the crane.

**WARNING** Equipment described herein is not designed for, and should not be used for, lifting, supporting or transporting humans.

Modifications to upgrade, rerate, or otherwise alter this crane or hoist equipment shall be authorized only by the original equipment manufacturer or qualified professional engineer.

Failure to comply with any one of the limitations noted herein can result in serious bodily injury and/or property damage.



## **Material Handling Group**

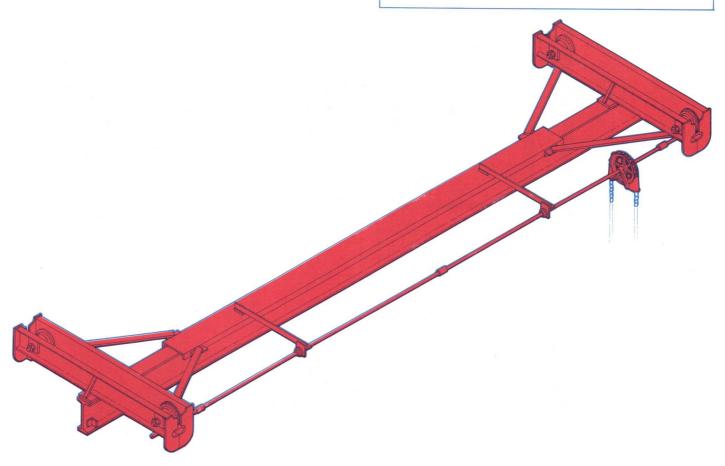


ISSUED 1-4-88 SUPERSEDES 12-5-86

## **SERIES 525**

Underhung Single Girder Crane Hand Operated For Use With Hand Hoists Or Electric Hoists

> CAPACITIES 1 TO 10 TONS SPANS TO 50 FEET



The Series 525 underhung single girder hand operated crane is engineered for any service which requires accurate spotting of loads, short travel distances, and infrequent handling of materials.

The Series 525 crane, when combined with an *Acco* hand operated, *Wright*® American electric hoist or *Work-rated*® electric hoist, is an excellent standby installation where it is practical to support a crane runway from the roof trusses or ceiling. The underhung single girder crane system utilizes the maximum space of the building cube.

All crane components are selected to give top performance, long, dependable service, and lowest maintenance.

The Series 525 crane is offered in capacities of one through ten tons, with spans up to 50 feet.

The bridge consists of heavy section beam rigidly bolted underneath the end truck, reinforced with bolted auxiliary braces.

The end trucks are ruggedly constructed of structural channels bolted together, jig welded and bored to provide true alignment of wheels, axles, and drive shaft. End trucks are easily adjustable to fit a wide range of standard beam sizes. Restraining lugs are designed as an integral part of the end trucks. Holes are provided for optional crane bumpers on each end truck.

Single flanged alloy steel wheels with hardened treads are included on each end truck and provide alignment with minimum skewing. Wheels are equipped with prelubricated, precision ball bearings, two to each wheel. Flat tread wheels are available for use on wide flange beams upon request. Wheels for use in hazardous environments are also available.

The drive shaft is geared to both end trucks to provide uniform travel at both sides of the crane. Hand wheel is operated from the floor by pulling on an endless hand chain. The operating wheel, which may be located at any convenient location on the drive shaft, is equipped with swing chain guide, that permits reasonable side pulling and rapid handling of chain without restricting the passage of the chain through the guide.

The Series 525 underhung girder, hand operated crane may be furnished with transfer and interlock, which transfer loads from one crane to another or to a monorail without removing the load.

The Series 525 cranes are custom designed, using pre-engineered components.



## **SERIES 525** Underhung Single Girder Crane Hand Operated For Use With Hand Hoists Or Electric Hoists

52-8 Issued 1-4-88



#### STANDARD EQUIPMENT SPECIFICATIONS

DESIGN FACTORS Standard capacity ratings shall represent the net rated load at the hook of any type of hoist with the same load rating installed on the crane having a hoist trolley weight within the established limits. The crane shall be so designed that the load carrying parts, except structural members and hoisting ropes and gearing, shall be designed so that the calculated static stress in the material, based on the rated load, shall not exceed 20% of the published average ultimate strength of the material. This limitation of stress provides a margin to allow for variations in the properties of materials, manufacturing and operating conditions, and design assumptions. However, under no condition shall the crane be loaded beyond its rated capacity.

BEAM Bridge beam shall be designed in accordance with latest specifications of the Crane Manufacturers Association of America and shall be of standard structural shapes, constructed in accord with AISC specifications. Under full load the beam deflection shall not exceed 1/600 of the span. Bridge beam shall be selected structural steel member and shall provide level and straight tread surfaces for the hoist trolleys. The bridge beam shall be braced to maintain squareness with the trucks. Bridge beam shall have adequate lateral stiffness with minimum lateral moment of inertia of 1/20 that of the vertical moment of inertia to provide adequate support for squaring shaft braces without twisting of the beam.

END TRUCKS End trucks shall be designed to run on the lower flanges of U.S. Standard I-beams. Each truck shall be equipped with two driven flanged wheels. The end truck shall be constructed from structural shapes which are fastened together by means of hardened bolts into a single unit of such strength as to prevent distortion and mismatch of gears under maximum rated load and to comply with the required design factor. End truck wheelbase shall be a minimum of 1/8 of crane span. Two wheels on each truck shall be geared and meshed with a pinion mounted on the crane drive shaft. The trucks shall be equipped with restraining lugs so that the drop of the trucks will be limited to one inch in case of axle or wheel failure.

**CRANE WHEELS** Crane wheels shall be flanged alloy steel and shall have tread surfaces hardened to 375 to 425 Brinell. Tread shall be tapered to provide suitable running alignment for crane. Each wheel shall be supported on precision ball bearings mounted on stationary axles suitable to take radial and thrust loads. The wheels shall be lubricated at the factory with a sodium-base grease and provided with a suitable reservoir of lubricant to eliminate the need for field lubrication. All drive wheel treads shall be smooth, true and uniform within 0.010 inch tread diameter.

**RUNWAYS** The runway beams operating surfaces shall be straight, parallel, level, and at the same elevation. The distance center to center and the elevation shall be within a tolerance of plus or minus 1/8". The runway should be standard sections of a proper size for the crane to be installed.

The crane runway and stops shall be furnished and installed by the user.

The crane runway shall be designed with sufficient strength and rigidity to prevent undue lateral or vertical deflection.

**WELDING** Welding shall be done by certified welders and shall be in accordance with the standards. All welds shall be ductile, shall have good weld penetration free of cracks and undercuts and the welds shall manifest workmanlike appearance.

**CRANE DRIVE** Crane travel shall be accomplished by pulling on an endless chain hanging to within 18 inches of the floor line. Chain wheel shall be equipped with a swinging chain guide designed to minimize "gagging" of the chain when being rapidly handled. Operating wheel shall be attached to a squaring shaft extending the length of the bridge. Pinions shall be keyed to each end of the shaft to engage the gears on the driving truck wheels.

**DRIVE SHAFT** The drive shaft of the crane shall be supported on lubricated precision ball bearing pillow blocks based on ten foot maximum centers. These pillow blocks shall be lubricated through pressure grease fittings. The crane squaring shaft shall be ground and polished steel to required bearing tolerance. It shall limit torsional shaft stress to 6,000 psi. The drive shall be so arranged and designed that the maximum torsional twist angle in the squaring shaft, when referred to the drive wheels of the crane, shall not exceed one degree of the wheel rotation under maximum rated load regardless of load location.

**BEARING LIFE** All bearings in the crane wheels, and those supporting the squaring shafts shall be designed for 5,000 hours B-10 bearing life minimum.

**GEARING** All gears shall be cut from solid blanks with 20 degree pressure angle involute shape for high strength and shall comply with AGMA specifications for load ratings.

**PAINTING** The crane before shipment shall be painted with one coat of red semi-gloss lead free enamel.

**OPERATING AND MAINTENANCE** Proper erection instructions, parts list and maintenance instructions will be furnished with the crane.

**WARNING** Equipment described herein is not designed for, and should not be used for lifting, supporting, or transporting humans. Modifications to upgrade, rerate, or otherwise alter the hoist or crane equipment shall be authorized only by the original manufacturer or qualified professional engineer.

Failure to comply with any one of the limitations noted herein may result in serious bodily injury.

**WARNING** Buyer and user warrants that the structure in which and to which this system or equipment is to be installed is adequate to sustain the loads that will be imposed on it by said system or equipment when it is operating as intended.



## **Acco Products Division**

A member of the Acco Material Handling Group

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12140 Bellflower Blvd., Downey, CA 90241 Telephone 213 862-8101 FAX 213 862-4382





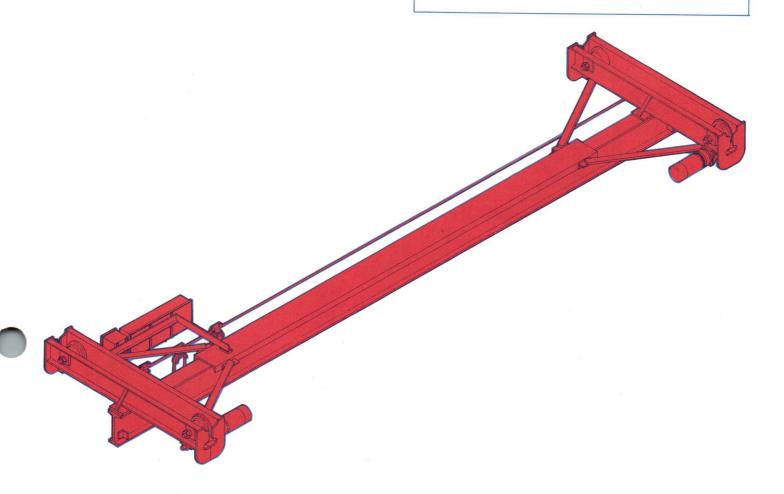
ISSUED 1-4-88 SUPERSEDES 12-15-86

52-9

## **SERIES 526**

Underhung Single Girder Motorized Dual Drive Crane

> CAPACITIES 1 TO 10 TONS SPANS TO 50 FEET



The Wright® American Series 526 underhung single girder motorized dual drive crane is engineered for service of a variety of loads and applications where an economical, reliable unit is required.

The Series 526 underhung single girder crane, combined with a Wright® American or Wright® Work-rated® trolley hoist, is an excellent installation supported from roof trusses or ceiling, utilizing the maximum space of the building cube.

All crane components are selected to give top performance, long, dependable service, and lowest maintenance.

The Series 526 crane is offered in capacities of one through ten tons, with spans up to 50 feet. Standard bridge speeds available are 70 and 120 FPM single speed with ACM. Optional two speed at 70/23 or 120/40 FPM with ACM is available.

Bridge consists of heavy section beam, rigidly bolted to the end trucks, reinforced with welded and bolted corner brace bars.

The end trucks are ruggedly constructed of structural channels, bolted together, jig welded and bored to provide true alignment of wheels, axles, and drive shaft. End trucks are easily adjustable to fit a wide range of standard beam sizes. Restraining lugs are designed as an integral part of the end trucks. Holes are provided for optional crane bumpers on each end truck.

Single flanged alloy steel wheels with hardened treads are included on each end truck and provide alignment with minimum skewing. Wheels are equipped with prelubricated, precision ball bearings, two to each wheel. Flat tread wheels are available for use on wide flange beams upon request. Wheels for use in hazardous environments are also available.

The enclosed dual drive helical gear reduction units, complete with ACM control and A.C. disc brakes, provide smooth bridge motion and excellent load control. The *Acco* ACM is an all solid state acceleration control module designed exclusively for crane and trolley traverse motion.

Standard electrical equipment includes NEMA type 3R enclosure, mainline magnetic contactor, manually operated fused mainline disconnect switch with lockout provision, branch circuit fuses, single speed magnetic reversing bridge control, transformer with fused secondary, and flat wire festoon tagline bridge electrification. Optional pendant or traveling push button from the bridge is available.

The Series 526 cranes are custom designed, using pre-engineered components.



#### SERIES 526 Underhung Single Girder Motorized **Dual Drive Crane**

52-12 Issued 1-4-88

#### STANDARD EQUIPMENT SPECIFICATIONS

**DESIGN FACTORS** Standard capacity ratings shall represent the net rated load at the hook of any type of hoist with the same load rating installed on the crane having a hoist trolley weight within the established limits. The crane shall be so designed that the load carrying parts, except structural members and hoisting ropes and gearing, shall be designed so that the calculated static stress in the material, based on the rated load, shall not exceed 20% of the published average ultimate strength of the material. This limitation of stress provides a margin to allow for variations in the properties of materials, manufacturing and operating conditions, and design assumptions. However, under no condition shall the crane be loaded beyond its rated capacity.

**BEAM** Bridge beam shall be designed in accordance with latest specifications of the Crane Manufacturers Association of America and shall be of standard structural shapes, constructed in accord with AISC specifications. Under full load the beam deflection shall not exceed 1/600 of the span. Bridge beam shall be selected structural steel member and shall provide level and straight tread surfaces for the hoist trolleys. The bridge beam shall be braced to maintain squareness with the trucks. Bridge beam shall have adequate lateral stiffness with minimum lateral moment of inertia of 1/20 that of the vertical moment of inertia.

END TRUCKS End trucks shall be designed to run on the lower flanges of U.S. Standard I-beams. Each truck shall be equipped with two driven flanged wheels. The end truck shall be constructed from structural shapes which are fastened together by means of hardened bolts into a single unit of such strength as to prevent distortion and mismatch of gears under maximum rated load and to comply with the required design factor. End truck wheelbase shall be a minimum of 1/8 of crane span. Two wheels on each truck shall be geared and meshed with a pinion mounted on the crane drive shaft. The trucks shall be equipped with restraining lugs so that the drop of the trucks will be limited to one inch in case of axle or wheel failure.

CRANE WHEELS Crane wheels shall be flanged alloy steel and shall have tread surfaces hardened to 375 to 425 Brinell. Tread shall be tapered to provide suitable running alignment for crane. Each wheel shall be supported on precision ball bearings mounted on stationary axles suitable to take radial and thrust loads. The wheels shall be lubricated at the factory with a sodium-base grease and provided with a suitable reservoir of lubricant to eliminate the need for field lubrication. All drive wheel treads shall be smooth, true and uniform within 0.010 inch tread diameter.

RUNWAYS The runway rails shall be straight, parallel, level, and at the same elevation. The distance center to center, and the elevation shall be within a tolerance of plus or minus 1/8". The runway should be standard sections of a proper size for the crane to be installed.

The crane runway and stops shall be furnished and installed by the

The crane runway shall be designed with sufficient strength and rigidity to prevent undue lateral or vertical deflection.

WELDING Welding shall be done by certified welders and shall be in accordance with the standards. All welds shall be ductile, shall have good weld penetration free of cracks and undercuts and the welds shall manifest workmanlike appearance.

CRANE DRIVE Each end truck shall be provided with a helical gear motor reducer. The drive motor for each truck shall be fully enclosed, 30-minute duty rated Class B insulation in a NEMA frame and shall comply with NEMA performance specifications. A spring set, electrically released AC disc type brake shall be integrally mounted on each motor in line with the reducer. The motors shall be integral with fully enclosed oil splash lubricated gear reducers. The gear reduction shaft shall be supported by precison ball or roller bearings.

BEARING LIFE All bearings in the crane wheels and the gear reduction shafts shall be designed for 5,000 hours B-10 bearing life minimum.

GEARING All gears shall be cut from solid blanks with 20 degree pressure angle involute shape for high strength and shall comply with AGMA specifications for load ratings. All gears operating at higher than 200 FPM pitchline speed shall be fully enclosed in oil tight housings and lubricated by splash principle.

**ELECTRICAL CONTROLS** Electrical controls shall be single speed or two speed as determined by speed required. Bridge control shall include a mainline contactor, manually operated fused mainline disconnect with lock-out provision, branch circuit fuses, reversing bridge control and transformer with fused secondary. Bridge control shall be mounted on bridge in NEMA type 3R enclosure actuated from a pendant push button station from either the trolley hoist or the bridge as determined by the requirements. Single speed or two speed bridge motors shall be provided with a solid state control to adjust the starting torque and acceleration.

BRIDGE CONDUCTORS AND WIRING Flat wire festoon tagline bridge conductor shall be provided with the crane to provide fully insulated bridge electrification. All other wiring of the crane shall be in rigid or flexible conduit in accordance with National Electrical

PAINTING The crane before shipment shall be painted with one coat of red semi-gloss lead free enamel.

OPERATING AND MAINTENANCE Proper erection instructions, parts list and maintenance instructions will be furnished with the crane.

WARNING Equipment described herein is not designed for, and should not be used for, lifting, supporting, or transporting humans. Modifications to upgrade, rerate, or otherwise alter the hoist or crane equipment shall be authorized only by the original manufacturer or qualified professional engineer.

Failure to comply with any one of the limitations noted herein may result in serious bodily injury.

WARNING Buyer and user warrants that the structure in which and to which this system or equipment is to be installed is adequate to sustain the loads that will be imposed on it by said system or equipment when it is operating as intended.



## **Acco Products Division**

A member of the Acco Material Handling Group

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12140 Bellflower Blvd., Downey, CA 90241 Telephone 213 862-8101 FAX 213 862-4382









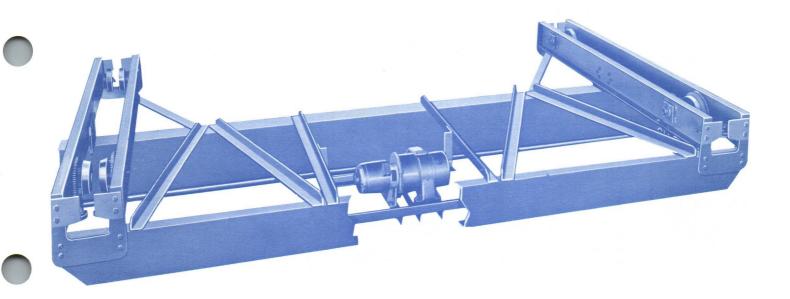
Issued 3-20-87 Supersedes 3-1-84 52-13

## **WRIGHT® WORK-RATEN®**

SERIES 524

UNDERHUNG SINGLE GIRDER CRANE MOTOR DRIVEN—CENTER DRIVE

> CAPACITIES 1 to 10 TONS SPANS to 48 FEET



The *Wright* Series 524 underhung single girder motor driven center drive crane is engineered for normal industrial service.

The Series 524 underhung single girder crane, combined with a *Wright Work-rated*® or *Wright* American trolley hoist, is an excellent installation supported from roof trusses or ceiling, utilizing the maximum space of the building cube.

All crane components are selected to give top performance, long, dependable service, and lowest maintenance.

The Series 524 crane is offered in capacities of one through ten tons, with spans up to 48 feet, and in standard bridge travel speed of 75 FPM single speed. 125 or 175 is optional.

The bridge consists of heavy section beam, rigidly bolted underneath the end truck to provide in-square operation. Longer spans are reinforced by capping channel welded to the bridge beam. A heavy structural channel outrigger member, running full length of the bridge, is braced to the bridge beam on the crane drive side to provide lateral rigidity and support to the drive unit.

The end trucks are ruggedly constructed of two structural channels tied together at the ends with heavy yokes, and jig welded and bored to provide true alignment of wheels, axles and drive shaft. Removable axle permits crane erection and wheel or gear replacement without dismantling end truck.

Flangeless alloy steel wheels with hardened treads are included on each end truck and, combined with end truck beam web rollers, provide align-

ment with minimum skewing. Wheels are equipped with prelubricated, tapered roller bearings two to each wheel. The flangeless wheel can travel from a large beam to a small beam on the same runway, allowing the runway to be constructed using the most economical beam size. Restraining lugs are provided as standard equipment.

The Series 524 enclosed center mounted standard 75 FPM single speed crane drive unit complete with ACM control and brake provides smooth bridge motion and excellent load control. The Acco ACM is an all solid state acceleration control module designed exclusively for crane and trolley traverse motions. The equal length squaring shaft is geared to wheels on both end trucks to provide uniform travel at both sides of the crane.

Standard electrical equipment includes NEMA Type 3R enclosure mainline magnetic contactor, manually operated fused mainline disconnect switch with lock-out provision, branch circuit fuses, single speed magnetic reversing bridge control, transformer with fused secondary and festooned bridge electrification.

The Series 524 underhung single girder motor driven crane may be furnished with transfer and interlock, which transfer loads from one crane to another or to a monorail without removing the load.

The Series 524 cranes are custom designed using pre-engineered components.



# WORK-RATED® SERIES 524 UNDERHUNG SINGLE GIRDER CRANE MOTOR DRIVEN—CENTER DRIVE

#### STANDARD EQUIPMENT SPECIFICATIONS

**DESIGN FACTORS** Standard capacity ratings shall represent the net rated load at the hook of any type of hoist with the same load rating installed on the crane having a hoist trolley weight within the established limits. The crane shall be so designed that the load carrying parts, except structural members and hoisting ropes and gearing, shall be designed so that the calculated static stress in the material, based on the rated load, shall not exceed 20% of the published average ultimate strength of the material. This limitation of stress provides a margin to allow for variations in the properties of materials, manufacturing and operating conditions, and design assumptions. However, under no condition shall the crane be loaded beyond its rated capacity.

**BEAM** Bridge beam shall be designed in accordance with latest specifications of the Crane Manufacturers Association of America and shall be of standard structural shapes constructed in accord with AISC specifications. Under full load the beam deflection shall not exceed 1/600 of the span. Bridge beam shall be selected structural steel members and shall provide level and straight tread surfaces for the hoist trolleys. Crane shall be reinforced with outrigger to provide squareness with the end truck, adequate lateral stiffness with a minimum lateral moment of inertia of 1/20 that of the vertical beam moment of inertia. Outrigger shall furnish support for squaring shaft and the crane drive motor and gear reducer assembly.

END TRUCKS End trucks shall be designed to run on the lower flanges of U.S. Standard I-beams. The tread surfaces of the wheels shall agree with the runway beam taper. In order to eliminate flange friction, end truck wheels shall be flangeless and guided from skewing by means of beam web rollers. The end truck frames shall be welded from structural shapes into a single unit of such strength as to prevent distortion and mismatch of gears under maximum rated load. End truck wheelbase shall be a minimum of 1/8 of the crane span. Two wheels in each truck shall be geared and meshed with a pinion mounted on the crane drive shaft.

The trucks shall be equipped with restraining lugs so that the drop of the truck will be limited to one inch in case of axle or wheel failure.

Attachment of end trucks to bridge beams shall be with bolts which will aid in assembly and convenient erection. Where necessary additional support members shall be provided to maintain the required design factors.

CRANE WHEELS Crane wheels shall be flangeless alloy steel and shall have tread surfaces hardened to 375 to 425 Brinell. Tread shall be tapered to provide suitable running alignment for crane. Each wheel shall be supported on tapered roller bearings mounted on stationary axles suitable to take radial and thrust loads. The wheels shall be lubricated at the factory with a sodium-base grease and provided with a suitable reservoir of lubricant to eliminate the need for field lubrication. Wheel axles must have mounting nuts for bearing adjustment. Wheel mounting shall be designed so that axles and wheels can be removed without disturbing other truck elements of their alignment. All drive wheel treads shall be smooth, true and uniform within .010 inch tread diameter.

**RUNWAYS** The runway rails shall be straight, parallel, level, and at the same elevation. The distance center to center and the elevation shall be within a tolerance of plus or minus 1/8". The runway should be standard sections of a proper size for the crane to be installed.

The crane runway and stops shall be furnished and installed by the user.

The crane runway shall be designed with sufficient strength and rigidity to prevent undue lateral or vertical deflection.

Welding Welding shall be done by certified welders and shall be in accordance with the standards. All welds shall be ductile, shall have good weld penetration free of cracks and undercuts and the welds shall manifest workmanlike appearance.

CRANE DRIVE The crane drive motor shall be fully enclosed 30 minute duty cycle rated, with class B insulation complying with NEMA performance specifications. The motor shall be integral with a fully enclosed oil splash lubricated gear reduction. The motor and the gear reduction shafts shall be supported by permanently lubricated precision ball or roller bearings. The drive shaft shall provide synchronous drive from the gear reduction to both end trucks. The crane drive shall include an integrally mounted spring set electrically released D.C. rectified disc brake.

**DRIVE SHAFT** The drive shaft of the crane shall be supported on lubricated precision ball bearing pillow blocks based on ten foot maximum centers. These pillow blocks shall be lubricated through pressure grease fittings. The crane drive shaft shall be steel and designed to limit torsional shaft stress to 6,000 psi. Maximum torsional twist angle in the drive shaft shall not exceed one degree of the wheel rotation under maximum rated load, regardless of load location.

**BEARING LIFE** All bearings in the crane wheels, those supporting the squaring shafts and the gear reduction shafts, shall be designed for 5,000 hours B-10 bearing life minimum.

GEARING All gears shall be cut from solid blanks with 20 degree pressure angle involute shape for high strength and shall comply with AGMA specifications for load ratings. All gears operating at higher than 200 FPM pitchline speed shall be fully enclosed in oil tight housings and lubricated by splash principle. All gear teeth shall have ductile cores and be surface hardened to RC40 minimum. The gear train shall provide for a minimum service of 4,000 hours compounded for intermittent operations corresponding to five years minimum industrial use.

**ELECTRICAL CONTROLS** Electrical controls shall be single speed or multi-speed as determined by speed required. Bridge control shall include a mainline magnetic contactor, manually operated fused mainline disconnect with lock-out provision, branch circuit fuses, reversing bridge control and transformer with fused secondary. Bridge control shall be mounted on bridge in NEMA Type 3R enclosure actuated from a pendant push-button station suspended from either movable or fixed point on bridge or movable with trolley hoist as specifically called for in application. Single speed motors shall be provided with a solid state control to adjust the starting torque and acceleration.

BRIDGE CONDUCTORS AND WIRING Bridge conductors shall be provided. All other wiring of the crane shall be in rigid or flexible conduit and in accordance with National Electrical Code and complying with Fire Underwriters specifications. When a crane is shipped knocked down, the wiring shall terminate in approved terminal boxes and the wire end shall be provided with permanent marking tags.

**PAINTING** The crane before shipment shall be painted with one coat of mustard yellow lead free chromate paint.

**OPERATING AND MAINTENANCE** Proper erection instructions, parts list and maintenance instructions will be furnished with the crane.

**WARNING** Equipment described herein is not designed for, and should not be used for, lifting, supporting or transporting humans.

Modifications to upgrade, rerate, or otherwise alter this crane or hoist equipment shall be authorized only by the original equipment manufacturer or qualified professional engineer.

Failure to comply with any one of the limitations noted herein can result in serious bodily injury and/or property damage.



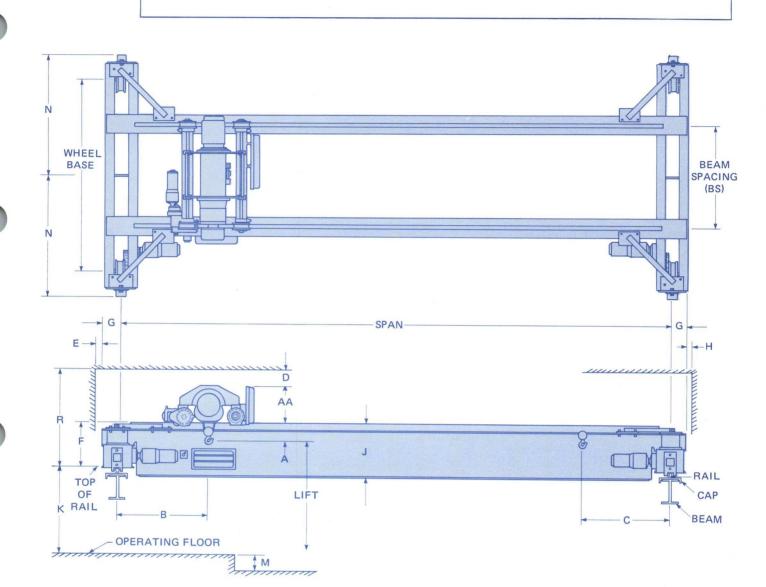
## **Material Handling Group**

1110 East Princess Street, York, PA 17403 Telephone (717) 843-1523 Telex 84-0411 Downey, California 12140 Bellflower Blvd., Downey, CA 90241 Telephone (213) 862-8101 Telex 69-8196



# WORK-RATED® SERIES 543 TOP RUNNING DOUBLE GIRDER MOTORIZED DUAL DRIVE CRANE

**54-17** Issued 10-30-87



Minimum O	nand runway is standard location of runway conductors. ISHA clearance between crane and obstruction requires and 3" overhead.	CRANE PROD. NO CAPACITY SPAN	
CUSTOMER:		LIFT	BS
		HOIST PROD, NO.	C
CUST. OR	DER NO	RUNWAY:	D
ACCO QUOTE NO		BEAM	E
ACCO JOB NO.		CAP. CH	F
DATE		RAIL	G
CUSTOMER APPROVAL		WHEEL LOADING	——— Н
		POWER SUPPLY	J
			Κ
5.475			M
DATE	SIGNATURE		N
			R



1110 E. Princess Street, York, PA 17403 Telephone 717 843-1523 FAX 717 846-5387 Telex 84-0411 **WARNING** Equipment described herein is not designed for, and should not be used for, lifting, supporting or transporting humans.

Failure to comply with any one of the limitations noted herein can result in serious bodily injury and/or property damage.

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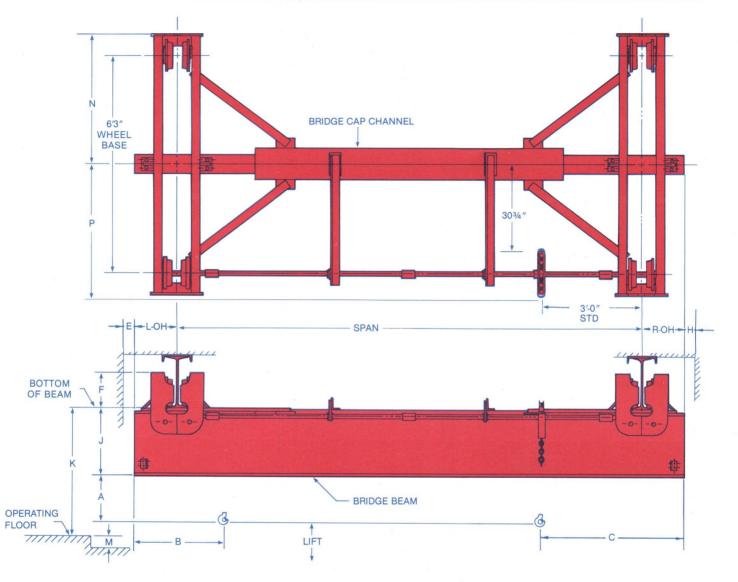
WB.



**SERIES 525** Underhung Single Girder Crane Hand Operated For Use With Hand Hoists Or Electric Hoists

1 to 10 TONS

**52-18** Issued 1-4-88 Supersedes 12-15-86



Note: Left-hand runway is standard location of runway cond	uctors.
Minimum OSHA clearance between crane and obstruction re 2" lateral and 3" overhead.	quires
CUSTOMER:	
CUST. ORDER NO	
ACCO QUOTE NO	
ACCO JOB NO.	
DATE	
CUSTOMER APPROVAL	

DATE

SIGNATURE

Acco Chain and Lifting Products Division 76 Acco Drive York, PA 17402

CRANE PROD. NO	A
CAPACITY	В
SPAN	C
LIFT	
HOIST PROD. NO	F
RUNWAY:	H
BEAM	J
CAP. CH	K
BRIDGE:	M
BEAM	N
CAP. CH	L-OH
WHEEL LOADING	R-OH
POWER SUPPLY	P

WARNING Equipment described herein is not designed for, and should not be used for lifting, supporting, or transporting humans. Modifications to upgrade, rerate, or otherwise alter the hoist or crane equipment shall be authorized only by the original manufacturer or qualified professional engineer.

Failure to comply with any one of the limitations noted herein may result in serious bodily injury.

0188 5M TP Printed in USA ©Acco



## SERIES 526 Underhung Single Girder

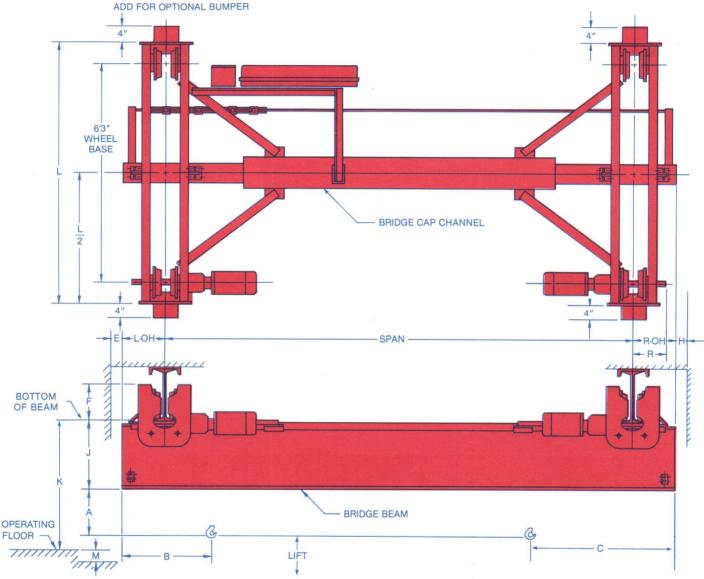
Motorized Dual Drive Crane

52-19

Issued 1-4-88

Supersedes 12-15-86





Note: Let	ft-hand runw	ay is standa	ard location	n of runway	conductors
	OSHA clea		en crane a	and obstruc	tion require

# CUSTOMER: \_\_\_\_\_\_\_CUST. ORDER NO. \_\_\_\_\_\_ACCO QUOTE NO. \_\_\_\_\_ACCO JOB NO. \_\_\_\_\_

CUSTOMER APPROVAL

DATE

SIGNATURE

Acco Chain and Lifting Products Division 76 Acco Drive York, PA 17402

CRANE PROD. NO	A
CAPACITY	В
SPAN	C
LIFT	E
HOIST PROD. NO	
RUNWAY:	H
BEAM	J
CAP. CH	
BRIDGE:	L
BEAM	M
CAP. CH	L-OH
WHEEL LOADING	R-OH
POWER SUPPLY	R

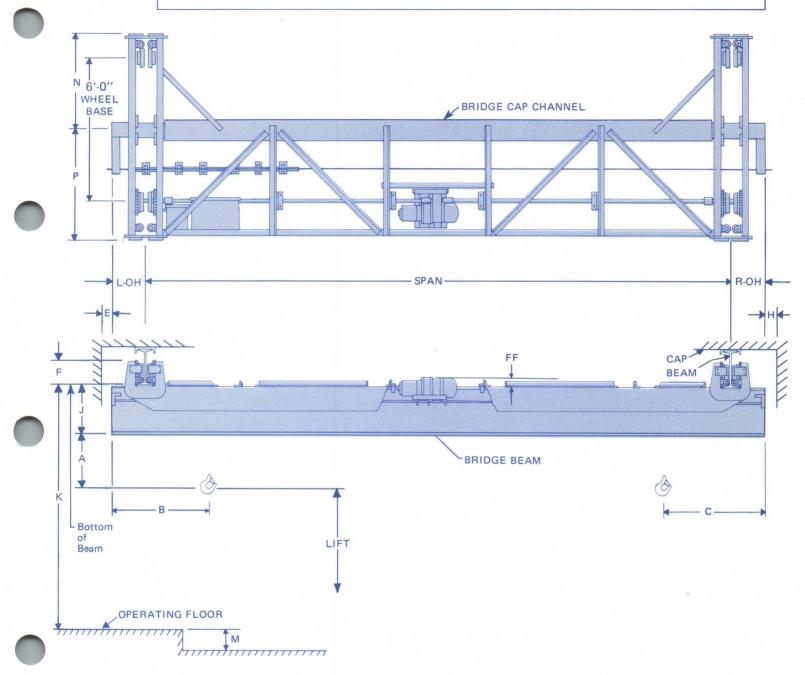
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Failure to comply with any one of the limitations noted herein may result in serious bodily injury.



# WORK-RATED® SERIES 524 UNDERHUNG SINGLE GIRDER CRANE MOTOR DRIVEN—CENTER DRIVE

**52-20** Issued 10-30-87



Note: Left-hand runway is standard location of runway conductors. Minimum OSHA clearance between crane and obstruction requires 2" lateral and 3" overhead.

CUSTOMER:

DATE



SIGNATURE

**Acco Products Division** 

A division of Babcock Industries Inc.

1110 E. Princess Street, York, PA 17403 Telephone 717 843-1523 FAX 717 846-5387 Telex 84-0411

CRANE PROD. NO	A
CAPACITY	В
SPAN	C
LIFT	E
HOIST PROD. NO	F
RUNWAY:	FF
BEAM	Н
CAP. CH	J
BRIDGE:	K
BEAM	M
CAP. CH	N
WHEEL LOADING	L-OH
POWER SUPPLY	R-OH

**Warning:** Equipment described herein is not designed for, and should not be used for, lifting, supporting, or transporting humans.

Failure to comply with any one of the limitations noted herein can result in serious bodily injury and/or property damage.

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